

CLAIMS REJECTIONS-35 USC 112:

75 The examiner has stated that Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The examiner noted that claims 1-8 include many 80 terms which do not have proper support in the specification (note the comments relative to the objection to the specification).

The examiner further states that Claims 1-8 are objected 85 for the following reasons:

Note that phrase "D-DAFO (DeRoss---Orthosis)" claims 1,8), or "D-DAFO" (claims 2-7) render the scope of the claim unclear. Applicant is advised to remove these 90 citations from the claims. The following terms lack antecedent basis: "said anterior shell" (Claim 1), "said elastic strap" (claim 6).

The applicant has responded to the examiner's claim 95 rejections by amending Claims 1-8 and providing antecedent basis for every term used in the claims by reviewing and correcting the specification. The applicant has also complied with the examiner's objections for providing proper antecedent basis for the claimed subject matter 100 (ie. 37 CFR 1.75 (d) (1) and MPEP 608.01 (o).)

The applicant has further complied with the examiner's objections to Claims 1-8 by removing the phrase "D-DAFO DeRoss---Orthosis) from Claims 1-8 as required. 105 Both claims 1 and 6 have been amended to correct the lack of proper antecedent basis to overcome the examiner's objections for Claims 1-8.

110 CLAIM REJECTIONS- 35 USC 103:

The examiner has stated that claims 1-3 and 5-7 are rejected under 35 U.S. C. 103 (a) as being unpatentable over Wang in view of Davies et al and Procelli, and/or Bourque et al. The examiner further states as for claim 1, Wang teaches every feature of claim 1 except for an anterior shell and a tongue. Davies et al teaches a tongue 12, Porcelli, Nichols, and Bourque et al teach an anterior members 23a (Porcelli), 13 (Nichols), 42 (Bourque et al).
115 In view of the teachings of Davies et al and Porcelli, and/or Bourque et al, it would have been obvious to an ordinary skill in the art at the time the invention was made to provide the brace of Wang with an anterior shell for protecting the front opening of the tibia, and with a tongue for protecting the upper part of the foot. The examiner further states that the provision of a well known structure such as an anterior shell or tongue for a brace is only a matter of engineering choice, and therefore is not patentable from prior art. The examiner notes Figures 120 6-8 of Wang in Claim 2 and a pair of lower flanges 63 (Fig 7) of Wang, or the lower flanges of Porcelli, or the lower flanges of Nichols in Claim 3. The examiner notes Figure 7 of Claim 6 of Wang. The examiner further notes that the use of rivet fasteners is very well-known in the art and 125 therefore is not patentable over the prior art.
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145 The applicant respectfully responds to the examiner's rejections for Claims 1-3 and 5-7 as follows:

150 The invention of Wang is purely a static structure apparatus providing a rigid plate conforming to an injured body part. It does not address the dynamic features of the subject patent dynamic ankle foot orthosis. Wang not only does not teach an anterior shell and tongue, but does not teach the dynamic stability of the subject patent.

155 The tongue (9) and the and pre-tibial shell (8) provide a unique forward and backward movement. This movement of the top half of the tongue (9) (at the ankle axis) and pre-tibial shell (8) create the foundation of the dynamic ankle foot orthosis giving it dynamic stability. These dynamics allow the patient's tibia to rotate forward (anteriorly) 160 and yet supported. Wang's invention teaches purely a rigid structure plate, immobilizing the injured body part on the rigid plate.

165 Davies teaches a tongue 12 used in a walking splint and is purely for retaining the foot with a plurality of straps and slots to immobilize the ankle joint. It does not teach, claim, or disclose the applicant's dynamic stability through movement of the top half of the tongue (9) at the 170 ankle axis and pretibial shell (8) in his invention either alone or in any "fair" combination.

175 Porcelli teaches a foot brace with a heel cup and clamp means to be tightened around the leg. The combination of the foot brace with a heel cup and clamping means does not teach the "dynamic stability" of the subject patent with the movement of the tongue and pre-tibial shell to provide the unique forward and backward movement of the subject patent. In the subject patent, these dynamics allow the

patient's tibia to rotate forward (anteriorly) and yet supported! Porcelli does not teach the anterior shell of the subject patent either in the specification or claims.

185 Nichols teaches only a shoe closure for lacing and retaining to the foot through a combination of flaps and eyelets. It does not teach nor disclose the subject patent and its features either alone, or in any "fair" combination.

190 The sports boot strap closure system described in Bourque et al provides a hinge that movably attaches the ankle portion to the upper foot portion for limited rotation. It does not teach, describe, disclose or claim the subject invention either alone or in any "fair" combination.

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It would be unobvious to one of ordinary skill in the art to combine the static brace of Wang with a tongue and anterior shell to attain the novel features of the subject invention in providing dynamic stability with its unique

200 forward and backward movement with the tongue and pretibial shell with the Porcelli, Nichols, Bourque et al, Davies Patents either alone or in any "fair" combination.

205 This movement of the top half of the tongue and pretibial shell of the subject patent create the uniqueness and foundation of the dynamic ankle foot orthosis giving it dynamic stability. The dynamics allow the patient's tibia to rotate forward (anteriorly) and yet supported. The D-DAFO Dynamic Ankle Orthosis continuously provides the

210 support to hold the patient in STN (sub-talar neutral) while simultaneously maintaining tone and extension synergy. These novel features of the subject patent are not disclosed, described or claimed totally in any of the reference patents and cannot be disclosed in any "fair" combination.

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220 The examiner has rejected Claims 4 and 8 under 35 USC 103a as being unpatentable over Wang in view of Davies et al and Porcelli, and further in view of Andrews. The examiner states that it would be obvious to an ordinary skill in the art to use the elastic strap for the brace of Wang. The 225 examiner notes the liner of 11 in Davies et al, as for Claim 8.

The applicant responds to the examiner's rejection stating as follows:

230 Claim 4 is a dependent claim for Claim 1. Although the elastic strap is taught by Andrews, the attachment means provided for securing the posterior base shell or said outer anterior shell in the ankle foot orthosis with the 235 elastic strap of Claim 1 is not taught by either Wang, Davies et al, Porcelli, and/or Nichols either individually, or in any fair combination.

240 The liner provided by Davies et al does not teach, disclose, or Claim the subject invention either alone or in any "fair" combination in view of Wang, Porcelli, and/or Nichols. Therefore, the subject invention is unobvious over the the prior art cited under 35 USC 103 (a), either alone or in any "fair" combination.

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260 The applicant has therefore overcome all the examiner's objections and rejections for the pending specification and the amended claims. The examiner requests reconsideration of the objections and rejections cited by the examiner and further requests that the applicant's novel patent be allowed to issue.

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Respectfully submitted

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